1. A process for preparing a controlled release potassium chloride tablet comprising coating potassium chloride crystals with a first coating of a water insoluble polymeric membrane and a second coating of a plasticized hydrophilic polymer, blending the coated potassium chloride crystals with one or more excipients, and compressing the blend into a tablet.

2. The process of claim 1 wherein the water insoluble polymeric membrane contains ethyl cellulose.

3. The process of claim 2 wherein the step of coating the ethylcellulose membrane includes coacervating said ethylcellulose from a solvent in the presence of polyethylene as the phase inducer.

4. The process of claim 2 wherein the primary ethylcellulose membrane has a viscosity of about 90 to 110 cps and is applied to the crystal in an amount of about 8 and about 19% by weight based on the weight of the potassium chloride crystal.

5. The process of claim 4 wherein the hydrophilic polymer membrane is comprised of a water swellable/water soluble polymer selected from the group consisting of acacia, alginic acid or its salt, corn starch, gelatin, xanthan gum, polyvinylpyrrolidone, sodium carboxymethylcellulose, methylcellulose, ethylcellulose having a viscosity from about 4 to 20 cps and hydroxypropylmethyl cellulose or a combination therof.

6. The process of claim 5 wherein the hydrophilic polymer membrane comprises between about 1 and 4% based on the weight of the ethylcellulose coated crystals.

7. The process of claim 6 wherein the hydrophilic polymeric membrane is formed from a polymer selected from the group consisting of polyvinylpyrrolidone, ethylcellulose and hydroxypropylmethyl cellulose, and mixtures thereof.

8. The process of claim 7 wherein the hydrophilic polymeric membrane is plasticized with a compound selected from the group consisting of polyethylene glycols, propylene glycol, triethyl citrate, triacetin, dibutyl phthalate and dibutyl sebacate.

9. The process of claim 8 wherein the hydrophilic polymeric membrane is provided by coating the ethylcellulose coated potassium chloride with an aqueous solution containing about 93 parts by weight PVP and about 7 parts by weight PEG 400 and PEG 4000 (weight ratio 1:1) for a weight gain of about 2% w/w.

10. The process of claim 8 wherein the hydrophilic polymeric membrane is provided by coating with an aqueous solution containing PVP and dibutyl sebacate at a ratio of 97 parts by weight to 3 parts by weight.

11. The process of claim 8 wherein the hydrophilic polymeric membrane is provided by coating with an aqueous solution containing HPMC and PEG 400 at a ratio of 93 parts by weight to 7 parts by weight.

12. The process of claim 8 wherein the hydrophilic polymeric membrane is provided by coating with a solution of ethylcellulose, PVP and dibutyl sebacate at a ratio of about 40 to 48 parts by weight ethylcellulose, about 40 to 48 parts PVP and about 2 to 6 parts dibutyl sebacate.

13. The process of claim 1 wherein the excipient is microcrystalline cellulose or hydrous or anhydrous lactose and the excipient is present in an amount of about 5-15% w/w.

14. The process of claim 13 wherein the excipient additionally includes a disintegrant and a lubricant/surfactant.

15. A potassium chloride tablet comprising a compressed mixture of an excipient and potassium chloride crystals, said crystals being coated with a first layer of a water insoluble polymer

16. The tablet of claim 15 wherein potassium chloride is present in an amount effective for the treatment for potassium deficiency in humans.

17. The tablet of claim 16 wherein the amount of potassium chloride is from about 8 mEq to about 20 mEq.

18. The tablet of claim 15 wherein the tablet releases not more than 40% of the potassium chloride they contain in one hr and not less than 80% of the potassium chloride over a period of 8 hrs when tested in USP Apparatus 2 (Paddles @ 50 rpm) in purified water.